VFA, Inc. conducted a Systems Lifecycle Assessment of the Kentucky State University-Frankfort at Frankfort, Ky. The following buildings are included Kentucky State University: Academic Service Building, Atwood Agricultural Research, Bradford Hall, Carver Hall Annex, Chilled Water Plant, Cooperative Extension Program Facility, Motorpool, Soils and Lab Office and White Health Center, contains approximately 298,854 square feet of space.

The primary goals of the assessments were to:

1. Conduct a lifecycle facility condition assessment to determine the deferred maintenance backlog.
2. Determine the current effective age of each building's systems;
3. Generate a conditional benchmark
4. Forecast current and future financial requirements

Introduction to Facilities Condition Assessment

The Facilities Condition Assessment (FCA) is a vital step towards understanding the condition and planning the preservation of a building asset or a portfolio of assets. Planning for the preservation of the asset requires an estimate of the deferred maintenance backlog (what currently needs to be repaired, replaced or modified in the building) as well as anticipated future **component renewal** requirements (estimating when building systems will reach the end of their life and the costs then required for system replacement**).** Using the FCA findings, a plan may be developed to meet the specific objectives of the Kentucky State University-Frankfort relative to the buildings.

A quantitative measure useful in benchmarking and comparing the condition of a facility is the **facility condition index** (FCI). The FCI is calculated by dividing the sum of the Deferred Maintenance by the **current replacement value** of the building. The resulting ratio, or index, is an indication of the condition of the facility. The lower the index the better the relative condition of the facility. The FCI is used to target improved conditions in a long term deferred maintenance reduction plan.

The FCA process began with a physical survey of Kentucky State University - Frankfort by a team of qualified engineers and architects. The team systematically inspected the building and site , identifying systems with deferred maintenance and assessing the overall effective age of the building systems (**system conditions**). The team estimated the costs of the systems within the building and constructed a System List Model for the building. The **system list** is used to approximate the current replacement value of the building. Systems conditions are estimated as *effective* ~~age~~ along with the System List to estimate the replacement year and costs for each building system type. The *effective* ~~age~~ is used ~~rather than the actual age~~ to allow for the effect of varying levels of maintenance on the expected life of a given system.

Data was entered into VFA's relational database (VFA.*facility*) allowing information to be used for reporting, projecting and planning. Once the Deferred ~~Maintenance Backlog,~~ Building Replacement Value, ~~Cost~~ Model and System Conditions are identified and entered, the data can be examined from different perspective to gain an understanding of the buildings capital requirements. See the reports section for further information.

*Note: Items designated above in **Bold** are defined in the "Glossary" report section.*